

## 4.11 UTILITIES AND SERVICE SYSTEMS

This section is based on a Utilities and Service System report prepared by HMM Engineers (Appendix L) and a Water Supply Evaluation prepared for the project by the City of San José Department of Planning, Building, and Code Enforcement based on technical information provided by *HMM Engineers* and *Schaaf & Wheeler, Consulting Civil Engineers* (Appendix M).

### Introduction

Various policies in the San José 2020 General Plan have been adopted for the purpose of avoiding or mitigating utility-related impacts resulting from planned development within the City. All future development addressed by this EIR will be subject to the utility and service policies listed in Chapter 4, Goals and Policies, of the San José 2020 General Plan, including the following:

- *Level of Service Policy #1:* Urban service priorities should be to provide existing needs, prevent deterioration of existing service levels, and upgrade service levels.
- *Level of Service Policy #2:* Capital and facility needs generated by new development should be financed by new development.
- *Level of Service Policy #6:* Standard is Level of Service “D” for sanitary sewer line.
- *Level of Service Policy #7:* Monitor and regulate growth so that cumulative sewage treatment demand can be accommodated by the San José/Santa Clara Water Pollution Control Plant.
- *Level of Service Policy #9:* Encourage the use of water conservation programs.
- *Level of Service Policy #12:* Design projects to minimize flooding.
- *Water Resources Policy #11:* New development should promote the use of recycled water.
- *Urban Design Policy #7:* Utility lines serving new development should be underground.

In addition to the above-listed policies of the San José 2020 General Plan, new development in San José is required to comply with programs that mandate the use of water-conserving features and appliances.

### 4.11.1 Existing Conditions

The North Coyote Valley Campus Industrial area of the CVSP area is within the City of San José’s Urban Service Area (USA); the area of the City that receives City services. The Coyote Valley Urban Reserve is outside of the USA, but within the Urban Growth Boundary (UGB). The Greenbelt area is outside of the City’s USA and UGB. Services can only be provided to the Urban Reserve if the Urban Services boundary is extended to include this area.

#### 4.11.1.1 Existing Sanitary Sewer/Wastewater Treatment

The City’s sanitary sewer/wastewater treatment system has two distinct components: 1) a network of sewer mains/pipes that convey effluent from the source to a treatment plant, and 2) the water pollution control plant that treats the effluent, including a system of mains/pipes that recycle a portion of the treated wastewater for non-potable uses (e.g., irrigation of landscaping, agricultural irrigation, dust suppression during construction, etc.).

### Sanitary Sewer System

The City of San José has adopted a level of service (LOS) policy for design of sanitary sewer mains. The levels of service range from “A” to “F,” with LOS A defined as unrestricted flow, and LOS F

defined as being inadequate to convey existing sewer flow. To meet the City's guidelines, new developments must meet LOS D or better. LOS D is defined as restricted sewage flow during peak conditions.

North Coyote and Downstream Sanitary Sewer: Public sanitary sewer facilities only exist within the North Coyote Campus Industrial area of the CVSP Development Area. Specifically, there is an existing 15-inch sanitary sewer main in Bailey Avenue, east of Santa Teresa Boulevard, and a 12-inch main west of Santa Teresa Boulevard that serves the existing IBM facility on the north side of Bailey Avenue. These sanitary sewer mains connect to an existing 38-inch lined sewer main in Santa Teresa Boulevard (the original 48-inch sewer main was lined with a 38-inch liner pipe in 1998). The 38-inch main travels north connecting to the south end of the Monterey-Riverside Sewer System at the 27- and 18-inch sewer mains roughly 500 linear feet south of Bayliss Drive. From Bayliss Drive, 24-, 27-, and 30-inch sewer mains of the Monterey-Riverside system continue in Santa Teresa Boulevard, Cottle Road, Beswich Drive, Bangor Avenue, Lean Avenue, Chynoweth Avenue, Snell Avenue, Hillsdale Avenue, and Monterey Highway before connecting to the 54-inch sewer on Monterey Road, allowing effluent to flow to the San José/Santa Clara WPCP.

Coyote Valley Urban Reserve and Coyote Greenbelt Sanitary Sewer: The Coyote Valley Urban Reserve and Coyote Greenbelt areas are located in Santa Clara County just south of the San José's Urban Service Area boundary, and do not currently receive City services. The area instead relies upon private septic tank and leach field systems for sewage and wastewater treatment. More specifically, the Urban Reserve area contains 42 confirmed existing septic tanks, and the Coyote Greenbelt area has 65 confirmed existing septic tanks.

### **San José/Santa Clara Water Pollution Control Plant**

The San José/Santa Clara Water Pollution Control Plant (WPCP), which is located in the Alviso area of San José, provides wastewater treatment for the cities of San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. A majority of the treated water from the WPCP is discharged as fresh water through the Artesian Slough and into the South San Francisco Bay. Approximately 10 percent of the water is recycled through the South Bay Water Recycling Program (SBWR), described below, for landscaping, agricultural irrigation, and industrial uses throughout the South Bay.

The WPCP has an existing capacity to treat 167 million gallons of wastewater per day (of this total amount the capacity allocated to San José is approximately 107 million gallons per day (mgd)). While the capacity of the WPCP is 167 mgd, the National Pollution Discharge Elimination System (NPDES) permitting program limits the amount of treated wastewater that can be discharged to the San Francisco Bay to 120 mgd average dry weather effluent (wastewater) flow (average of the 3 lowest months between May–October). This is due to potential impacts of additional freshwater discharges to saltwater marsh habitat, as well as pollutant loading to the San Francisco Bay. For the reasons discussed previously in Section 4.11.1.1 of this EIR, while the capacity of the Plant is 167 mgd, the amount of treated wastewater that can be discharged to the Lower San Francisco Bay is limited by regulation, Plant discharge permit, to 120 mgd average dry weather effluent flow (average of the 3 lowest months between May–October) or to levels that protect endangered species habitat. The NPDES permit requirement is a trigger that, if the 120 mgd average dry weather effluent flow is exceeded, requires the Plant to engage in specific mitigation activities, such as increases in recycled water.

As mentioned, approximately 10 percent of the wastewater that flows into the WPCP is recycled through the SBWR program, which in part, was created to maintain flows under 120 mgd to the San Francisco Bay. The wastewater recycled at the WPCP undergoes primary, secondary, and tertiary

treatment before it is used for landscaping, agricultural irrigation, and industrial uses. The SBWR system includes over 100 miles of pipelines that convey recycled water to portions of the cities of San José, Santa Clara, and Milpitas. The SBWR program is currently recycling approximately 10-16 mgd of wastewater flowing into the WPCP during the peak summer season.

The only area of the Coyote Valley currently served by the SBWR program is the Metcalf Energy Center which uses up to approximately 4,000 acre-feet per year of recycled water for cooling purposes.

#### **4.11.1.2      *Existing Water Supply System***

Both the City of San José Municipal Water Division and the Great Oaks Water Company provide water service to portions of the North Coyote Valley area. San José Water Company owns property northeast of the CVSP Area. Most of the Coyote Urban Reserve and Greenbelt areas located south of the City's Urban Service Area boundary do not currently receive water from a water retailer; these areas rely upon private wells for potable water supply. The facilities within the valley of the various retailers are described below.

##### **San José Municipal Water**

Water sources for the San José Municipal Water System are the Hetch-Hetchy Aqueduct and groundwater wells. San José Municipal Water's facilities in the CVSP area include three wells located adjacent to the Union Pacific Railroad, north of Bailey Avenue, as well as pump stations and a 3.6 million gallon storage tank on IBM's property west of Laguna Seca. These facilities currently serve the potable demands of the Metcalf Energy Center and provide irrigation water to the landscaping along Bailey Avenue and Santa Teresa Boulevard. Existing 18-inch public water mains are located in Bailey Avenue. Santa Teresa Boulevard contains an 18-inch water main from Bailey Avenue to Tulare Hill and a parallel 12-inch water main from Bailey Avenue to Fisher Creek. The 18-inch main is on the east side and the 12-inch main is on the west side of Santa Teresa Boulevard in the North Coyote area.

##### **Great Oaks Water Company**

Great Oaks Water Company currently provides water service to the existing IBM facility by way of water tanks in the western hills. Great Oaks also recently completed the Santa Teresa pipeline project, which constructed approximately 12,000 feet of new 16-inch main in Santa Teresa Boulevard, from Bayliss Avenue to Scheller Avenue in the Urban Reserve. Great Oaks also has plans to construct a new well and pump station near Richmond Avenue that will utilize the Santa Teresa Boulevard pipeline to service areas outside of the Coyote Valley.

##### **San José Water Company**

While the San José Water Company does not currently supply water to users in the Coyote Valley, they do own property northeast of the CVSP Development Area that was purchased for the purpose of installing a well and supplying water to residents on Metcalf Road.

##### **Santa Clara Valley Water District**

The Santa Clara Valley Water District (SCVWD) manages Santa Clara County's water resources and serves as the steward of the ten district-built reservoirs. As part of their water conveyance and distribution system, the SCVWD owns the Cross Valley Pipeline, which is a 78-inch water line that conveys water from Anderson Reservoir west through the CVSP Area to the Calero Reservoir in the

upper (southern) end of the Almaden Valley.

#### **4.11.1.3      *Storm Drainage System***

Storm drainage runoff within the urbanized areas of San José is discharged into local storm drains, which flow to the creeks and rivers and ultimately to the San Francisco Bay. The Santa Clara Valley Water District (SCVWD) has jurisdiction over most of the creek channels that collect runoff from the storm drains serving urban areas. There are few formal drainage systems or facilities in the CVSP Development Area, aside from a series of roadside ditches and culverts which convey stormwater to Fisher and Coyote Creeks. The North Coyote area contains an existing storm drain system in Santa Teresa Boulevard and in Bailey Avenue. Both of these systems drain to Fisher Creek by way of reinforced concrete pipe (RCP) outfalls. As previously described, portions of the storm drainage system approved and permitted as part of the CVRP project are currently under construction, details of which are included in Appendix B.

##### **Bailey Avenue System**

The Bailey Avenue system was constructed with temporary storm drain outfalls to Fisher Creek. The existing storm drain system in Bailey Avenue includes a 48-inch storm drain to the east, and 60-inch storm to the west of Santa Teresa Boulevard. The existing 60-inch pipe is stubbed at a storm drain manhole and connects to a temporary 24-inch pipe outfall into Fisher Creek. The CVRP project plans to upgrade the outfall to a 72-inch pipe in 2007.

##### **Santa Teresa Boulevard System**

The existing Santa Teresa Boulevard storm drain system begins near Bailey Avenue with a 36-inch pipe, and gradually increase in diameter to a 60-inch pipe as it runs north. The existing 60-inch pipe is connected to a temporary 24-inch pipe storm drain outfall into Fisher Creek. A 12-foot by 12-foot reinforced concrete box (RCB) culvert is currently located where Santa Teresa Boulevard crosses Fisher Creek. A parallel 12-foot by 12-foot RCB culvert is currently under construction and the temporary outfall will be replaced with a 66-inch connection to the culvert as part of the work now being done as part of the CVRP project.

##### **Monterey Road System**

There are no formal storm drainage facilities that exist in Monterey Road except for localized improvements constructed with the Bailey Avenue extension. Intense storms create substantial flows northward along both the east and west shoulders of Monterey Road. Water flows northerly along Monterey Road through the North Coyote area where the flows return to Coyote Creek. Because the capacity of roadside ditches is limited, flows encroach onto the roadway in heavy storms. Coyote Creek water surface elevations greater than the 10-year event are also higher than adjacent elevations along Monterey Road, which limit the ability to drain Monterey Road to the creek.

#### **4.11.1.4      *Existing Solid Waste System***

The collection and disposal of solid waste is a fundamental community service regulated by the City for the benefit of the residents and businesses of San Jose. A solid waste hierarchy, comprised of source reduction, recycling/composting, transformation and landfilling, governs all solid waste management goals and policies of the City. This hierarchy places primary emphasis on implementing all feasible source reduction and recycling/composting measures, while continuing to allow transformation facilities and landfills to accommodate waste which cannot be reduced at the source, recycled or composted.

The City has exclusive agreements in place that run through the year 2013 for single-family collection service and a separate agreement for multi-family collection service that runs to 2010 with an option to extend it to 2013. The City's contract with the International Disposal Corporation (IDC) Newby Island Landfill goes to 2020 and any expansion at that facility is speculative at this time. The City's Recycle Plus contracts for single-family residential goes to 2013.

Collection of residential waste occurs under exclusive agreements between the City and several service providers. Garbage and recycling collection and processing services (the Recycle Plus Program and yard waste collection and recycling, are provided to both single-family and multi-family residences. Residents are allowed and encouraged to recycle up to 80 percent of their solid waste stream in curbside recycling and yard waste containers or piles of yard trimmings placed in the street for collection. The City has a contract with Newby Island Landfill for the disposal of residential garbage, though the residential haulers may dispose of the waste elsewhere at their own expense in extraordinary circumstances. Residents are prohibited from self-hauling garbage but can take recyclables to appropriate facilities.

Commercial solid waste and recyclables collection services in San José are provided by approximately two dozen non-exclusive City-franchised haulers. The waste may be disposed of at any of the five privately owned landfills in San José. Recycling services are available to most businesses from private recyclers. The City of San José currently offers information and assistance to businesses wishing to recycle, or to expand their recycling activities.

#### **4.11.1.5      *Electricity, Natural Gas, and Telephone Services***

The Pacific Gas & Electric Company (PG&E) is the utility that provides electricity and natural gas to the Coyote Valley area by way of a system of existing electric transmission towers and overhead electrical lines which run along most of the existing streets within the Plan Area. The Metcalf Energy Center (MEC) is a 600-watt power generation facility that was recently built by the Calpine Corporation in the northeastern portion of the CVSP Area, along Monterey Road adjacent to the existing Metcalf PG&E substation. MEC utilizes natural gas for fuel and recycled water for the cooling of the plant, as previously described.

Natural gas is provided through a system of underground pipelines in Santa Teresa Boulevard and Monterey Road and also within some streets in the Plan Area. A high pressure gas line that serves the Metcalf Energy Center is located in the northeastern portion of the Greenbelt.

Several companies provide telecommunications service to the valley. AT&T (formerly SBC Communications and Pacific Bell Phone Company), provides telephone services to customers by way of main telephone lines in Monterey Road and Santa Teresa Boulevard. AT&T also provides fiber-optic broadband communications. Major fiber-optic lines are located in Monterey Road and

provide various telecommunication companies (SBC, Level 3, MCI, Qwest, ITC, Deltacom, and ICG) with the means by which to provide a range of business and residential communication services including high-speed Internet, wireless calling, and web-hosting. The Comcast Corporation provides cable television and broadband internet service to the area.

#### **4.11.2            Utility and Service System Impacts**

##### **4.11.2.1        *Thresholds of Significance***

For the purposes of this EIR, a utilities and service system impact is considered significant if the project will:

- exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- require or result in the construction of new water, sanitary sewer or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- require or result in the construction of new stormwater or wastewater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- not have sufficient water supplies available to serve the project from existing entitlements and resources, and would require new or expanded entitlements; or
- require or result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's forecasted wastewater flow in addition to the provider's existing commitments; or
- be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- be inconsistent with federal, state, or local statutes and regulations related to solid waste.

##### **4.11.2.2        *Impacts on the Sanitary Sewer/Wastewater Treatment Systems***

#### **Adequacy of Sanitary Sewer Mains**

In general, the site is being converted from primarily undeveloped, agricultural land uses to an integrated community of land uses including workplace, residential, mixed use, retail, public services (i.e., schools, parks, fire stations, etc.), and infrastructure. An analysis by HMM Engineers (Appendix L) indicates that, while the existing 48-inch (38-inch inside diameter) line in Santa Teresa Boulevard north of Bailey Avenue is sufficient to serve the proposed CVSP development, the lines in Bailey Avenue would need to be reconstructed around the focal lake and upgraded. The capacity of existing sections of pipe in Santa Teresa Boulevard is between approximately 20 to 25 mgd. The proposed project would require the installation of a sanitary sewer system to serve the future needs of the CVSP Development Area. A Sanitary Sewer Master Plan has been completed for the CVRP project, and it would be expanded and modified as necessary to serve the CVSP Project.

There are constraints in the downstream sanitary sewer system. One constraint is located north of Blossom Hill Road, where surcharge has occurred in the past. The Edenvale Sanitary Sewer Supplement Phase V Project is currently under design to construct 42-inch, 48-inch, and 54-inch diameter sanitary sewer pipes in the public system downstream. The project alignment includes approximately 9,800 linear feet of pipe in Monterey Road from Blossom Hill Road to State Route 85, and approximately 12,200 linear feet of pipe in Los Colinas Lane, San Ignacio Avenue, Great Oaks

Boulevard, Via Del Oro, Bernal Road, and Santa Teresa Boulevard. The design capacity of the Edenvale Phase V Project varies from roughly 31 mgd in Santa Teresa Boulevard between Chantilly and Bernal Road to 63 mgd in Monterey Road between Flintwell Way and Ford Road.

The north end of the Edenvale Phase V Project will connect to the existing 54-inch sewer line in Monterey Road at the Blossom Hill Road/Cottle Road off-ramp from US Highway 101. The south end of the Phase V Project proposes to abandon both the existing 27- and 18-inch sewer mains in Santa Teresa Boulevard and construct a 42-inch sewer interceptor to connect to the 42-inch sewer pipeline near Bayliss Drive, just north of the CVSP project area. Recent (Fall 2006) flow monitoring data show that flow is approximately 5.8 mgd in Lean Avenue just south of Blossom Hill Road. The City's Sanitary Sewer Capacity Assessment Study (completed in October 2004) indicated that the sewer capacity of the downstream Monterey-Riverside System varies from roughly six mgd in Chynoweth Avenue and Hillsdale Avenue to approximately 12 mgd in portions of Snell Avenue north of Branham Lane. The study also suggested that sewer flow of this system on Bangor Avenue, Lean Avenue, and Hillsdale Avenue would be restricted at existing peak conditions. For this reason, there will not be capacity in the system downstream to handle the development of the CVSP project. The Edenvale Phase V Project is budgeted for construction in two phases beginning in 2007 and is expected to be completed by 2010, prior to the existing capacity being exceeded. Once built, the new 42-inch sanitary sewer interceptor will provide a flow capacity of roughly 33 mgd.

The proposed urban development would result in a peak projected average daily flow at build-out of approximately 8.6 mgd and the peak flow is approximately 17.3 mgd, as shown in Table 4.11-1. It is anticipated that the public sewer mains in the CVSP area would discharge to the existing 48-inch sewer line in Santa Teresa Boulevard and the new 42-inch sewer main and interceptor to be constructed as part of the Edenvale Phase V Project. From this location, wastewater would be conveyed north to the San José/Santa Clara (WPCP), as previously described.

**Impact UTIL-1:** With construction of the planned improvements to the existing sanitary sewer system to the north, and construction of new sewer mains within the CVSP Development Area, the proposed project would not result in significant impacts to the sanitary sewer system. **[Less than Significant Impact]**

#### **Impacts to the San José/Santa Clara Water Pollution Control Plant**

Development proposed as part of the CVSP would result in an increase in wastewater treated at the WPCP. Table 4.11-1 provides a rough estimate of wastewater to be generated by the proposed CVSP development (at full build-out).

<b>TABLE 4.11-1</b> <b>ESTIMATE OF WASTEWATER TO BE GENERATED</b>			
<b>Land Use</b>	<b>Approx. No. Units/Sq. Ft.</b>	<b>Generation Rate</b>	<b>Amount Generated</b>
Single-Family Detached	6,750	240 gpd	1.6 mgd
Multi-Family Attached	19,650	160 gpd	3.1 mgd
Commercial	2.66 million sq. ft.	0.5 gpd/sq. ft.	1.3 mgd
R&D/Office (Workplace)	14.2 million sq. ft.	0.18 gpd/sq. ft.	2.6 mgd
<b>Total (Average Daily)</b>			<b>8.6 mgd</b>
<b>Peak Flow</b>			<b>17.3 mgd*</b>
sq. ft. = square feet gpd = gallons per day mgd = million gallons per day *Based on City formula.			
Source: David J. Powers and Associates and City of San José.			



The wastewater generated by the project would be approximately 8.6 mgd. According to preliminary calculations provided by *HMH Engineers* (Appendix L) and Schaaf & Wheeler (Appendix M), the project could use up to approximately 10 to 15 mgd of recycled water, as described in Section 4.11.2.3.<sup>45</sup> The use of recycled water by the project would help to offset the daily wastewater flows generated by the project, thus reducing the net increase in discharge to the Bay. The WPCP has stated that the urban development proposed as part of the CVSP project would not cause the WPCP to exceed its capacity or discharge limit.<sup>46</sup>

**Impact UTIL-2:** Wastewater generated by new CVSP development would not exceed the capacity of the San José/Santa Clara Water Pollution Control Plant. **[Less than Significant Impact]**

#### **4.11.2.3 Identification of Water Supply Sources**

The following discussion is based on the Water Supply Evaluation (WSE) prepared for the project by the City of San José (Appendix M), with assistance from Schaaf & Wheeler, Consulting Engineers. The WSE was prepared by the City to compile information contained in three Water Supply Assessments (WSA) prepared by the identified potential water suppliers for the CVSP Area, in conformance with Senate Bill 610 (SB 610) requirements.

In enacting SB 610 in 2001, the State Legislature required that the availability of water must be assessed before various large-scale projects can be approved. A water supply assessment must be completed by the water supplier(s) and such assessment(s) are to be included in the appropriate CEQA document.

Water is currently obtained for use in the valley from privately owned wells. It should be noted that the following discussion of water demand is not only for the CVSP development, but for the Coyote Valley Sub-basin as a whole. Therefore, the water demands of the Greenbelt and the City of Morgan Hill's Sphere of Influence are also included in the analysis completed for the WSAs and the City's WSE.

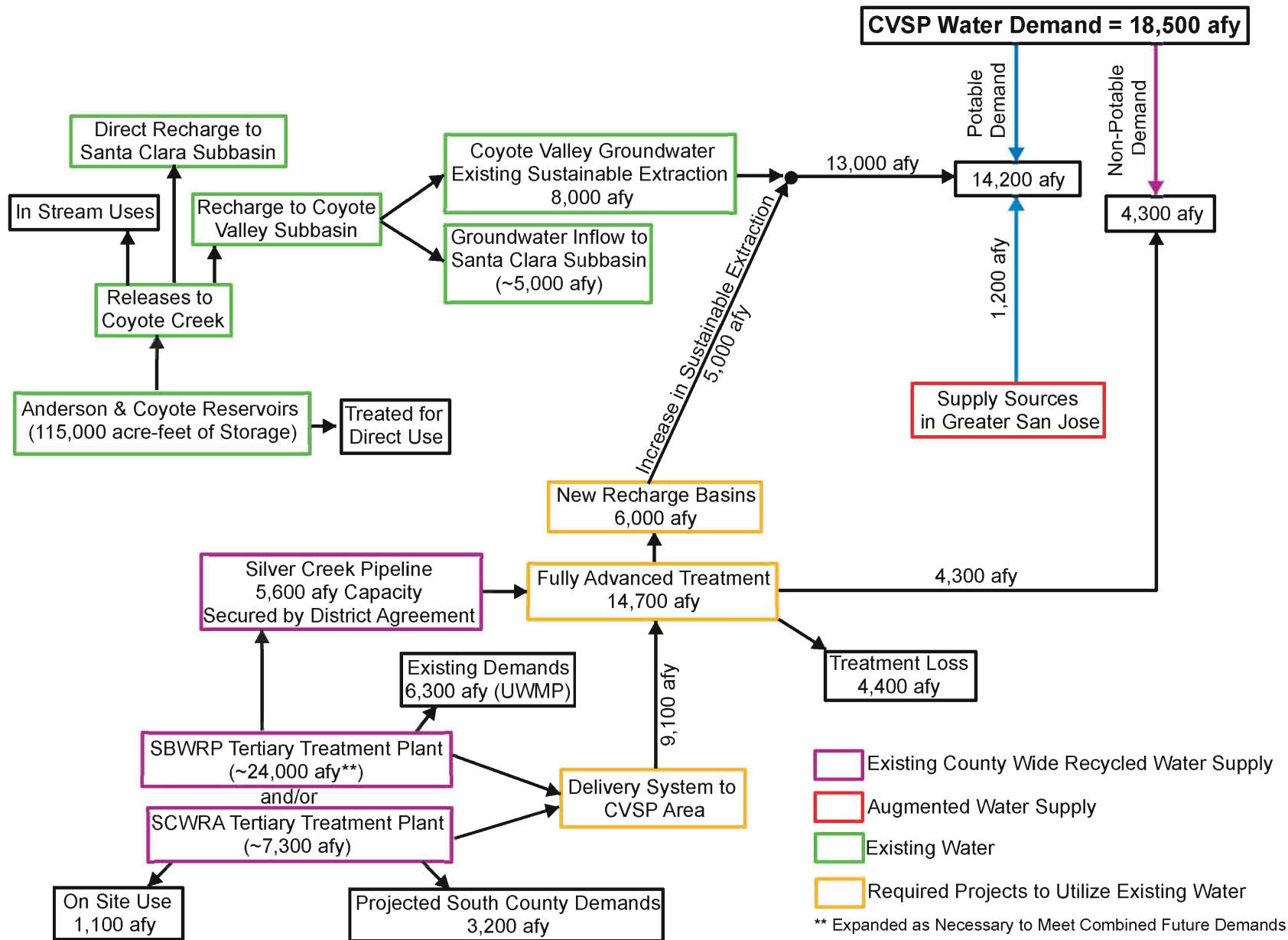
Prior to the preparation of its WSE, the City formally requested that the three prospective water retailers (San José Municipal Water, Great Oaks Water Company, and San José Water Company) prepare WSAs for the project at build-out (approximately 2030). The City used the information provided by the retailers and the SCVWD's Urban Water Management Plan to prepare its WSE. The SCVWD also provided additional technical information and the document was reviewed by their Board of Directors for content and accuracy on March 13, 2007. Subsequently, the WSE was accepted by the City of San José City Council also on March 13, 2007.

Build-out water demands for the CVSP are projected to total 18,500 acre-feet per year (afy), excluding recycled water already supplied to the Metcalf Energy Center. The Santa Clara Valley Water District's 2005 Urban Water Management Plan (UWMP) includes the build-out demand of the CVSP and concludes that with water conservation savings and additional infrastructure, projected County-wide demand (including Coyote Valley) can be satisfied through 2030.

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<sup>45</sup> Water that would be used outdoors and could come into contact with the groundwater (i.e., irrigation or recharge) would be advanced treated (reverse osmosis and ultraviolet light disinfection) prior to use in the CVSP Area to protect groundwater quality, per SCVWD requirements and as previously described in Section 4.8, *Hydrology and Water Quality*.

<sup>46</sup> Ron Garner, SJ/SC WPCP, March 2004.



Source: Schaaf &amp; Wheeler, Feb. 2007.

CVSP FUTURE WATER SUPPLY AND DEMAND

FIGURE 4.11-1

The three prospective water retailers have expressed interest in serving customers within the CVSP and have prepared SB610 Water Supply Assessments (WSAs). Each of the retailers concludes that they will have access to an adequate supply of water to meet build-out demand for the entire development of the CVSP in conjunction with the projected demand through 2030 from the remainder of their respective service areas. Each retailer proposes to deliver water from the greater San José area into Coyote Valley as necessary to make up for any shortfalls in local groundwater supplies.

Existing groundwater supplies in Coyote Valley can meet 8,000 afy of the 18,500 afy build-out demand in a sustainable fashion. To maximize this existing resource, an estimated demand of 4,300 afy has been identified as potentially non-potable, leaving a potable demand of 14,200 afy, as shown on Figure 4.11-1. After reviewing the SCVWD's UWMP and each retailer's WSA, SCVWD Board policy with respect to the preference for local water supplies over imported water supplies, and the City's stated goal of the CVSP as a model project with innovative solutions, the WSE recommends the following water supply master plan for Coyote Valley through build-out:

1. With the application of 6,000 afy of supplemental groundwater recharge in Coyote Valley, up to 13,000 afy of potable water may be pumped from the Coyote Valley Groundwater Sub-basin with no adverse effects in a multi-year drought.
2. The SCVWD has an agreement with the South Bay Water Recycling Program (SBWRP) to purchase 5,600 afy of additional recycled water at the end of the existing Silver Creek Pipeline. To account for operational peaking factors, local storage facilities will be needed to harness this complete volume, and the lake feature of the CVSP is a potential storage site. Any recycled water applied to the ground will require full advanced treatment including reverse osmosis and ultraviolet disinfection, and compliance with any state-mandated regulations.
3. The advanced treatment process results in a loss of roughly 30 percent of the incoming water supply. Given this loss, contracted recycled water from the Silver Creek Pipeline can furnish roughly 90 percent of ultimate direct non-potable demand from the CVSP.
4. Potable water is not required for groundwater recharge, and by supplying another 9,100 afy of recycled water for advanced treatment, the use of recycled water for direct non-potable demands and indirect potable groundwater recharge can be maximized. A remaining need for 1,200 afy of potable water to be delivered to the CVSP Development Area can be addressed through several alternative methods including:
  - Delivery of treated surface water or groundwater from the Santa Clara Valley Sub-basin (delivery facilities presently exist);
  - Direct use of treated water from the Santa Teresa Water Treatment Plant and other sources in greater San José; and/or
  - Aggressive water conservation to minimize the need for off-site water deliveries.

There is sufficient recycled water between the SBWRP and the South County Water Recycling Agency to provide CVSP's direct non-potable and indirect potable water demands with appropriate infrastructure and treatment. The use of recycled water should be maximized, because there is/will be a large supply that is locally controlled and largely uninterrupted.

The District's 2003 Integrated Water Resource Plan Study is due to be updated in 2008, although the timing for the update depends on the completion of other planning efforts. The next definite planning update is the 2010 UWMP. This update will include the identification of some of the

specific investments needed to protect existing and develop new water supplies. Further investigation of the associated costs and economic feasibility for the each of the proposed alternatives is underway, and working closely with the District, the City of San José will select a preferred alternative, or a combination of alternatives, as the CVSP process moves forward. Future planning may be adjusted in response to actual water demands in compliance with SB610 and SB210. The environmental impacts of the water supply alternatives are described in Section 4.16 of this EIR.

**Impact UTIL-3:** Based on the WSE prepared for the project, the proposed CVSP project would not create a demand for water that cannot be met through supplies that are projected to be available to the SCVWD and potential water retailers.  
**[Less than Significant Impact]**

#### **4.11.2.4 Storm Drainage System Impacts**

The proposed project includes the construction of a storm drainage system as described in Section 2.8 of this EIR. Other improvements include those already approved as part of the CVRP project as described in Appendix B. These improvements include replacing existing pipes and installing new pipes in Bailey Avenue, Santa Teresa Boulevard, and Monterey Road. With the construction of the new system and implementation of the system currently planned for the CVRP project, impacts to the storm drain system would be less than significant.

As previously described in Section 4.8, *Hydrology and Water Quality*, the construction of HMP basins in the CVSP area may not be desirable or necessary. Unstable portions of Coyote Creek have been identified by the SCVWD near the Silicon Valley Boulevard crossing of Coyote Creek. Improvements at this location would mitigate impacts associated with downstream erosion to a less than significant level.

**Impact UTIL-4:** The volume of stormwater expected to be generated by the proposed CVSP project would be accommodated in the planned storm drainage system. Impacts to Coyote Creek downstream of the CVSP Area would be mitigated by MM HYD-9.1 and 9.2. **[Less than Significant Impact]**

#### **4.11.2.5 Solid Waste Impacts**

As mentioned in Section 2.1.11.1, a Joint Use Maintenance and Vehicle Storage Facility would be located within the CVSP Development Area as part of IWM activities. The Joint Maintenance and Vehicle Storage Facility would include a corporation yard, a materials recovery facility (MRF), and composting facility. The site would also be used to host a residential drop-off center, large item handling facility, administration offices, vehicle parking, maintenance shop, truck wash rack and storage area for carts, bins and roll-off boxes. Depending on the types and quantities of waste materials and recyclables delivered, a permitted Solid Waste Transfer/Processing Station could be required.

To accommodate the Joint Use Maintenance and Vehicle Storage Facility, a minimum of 17 acres would be needed for the solid waste hauler's corporation yard, MRF, and a composting facility. The location of these facilities is likely at the northeasterly corner of the CVSP Development Area, near the MEC and future corporation yards. Subsequent project-specific environmental review would be required as appropriate and necessary prior to approval or construction of these facilities. Potential environmental impacts include noise and odors from solid waste collection and disposal activities, and impacts to biological resources and water quality.

The proposed CVSP project would generate solid waste that would need to be disposed of at local landfills. Table 4.11-2, below, provides a conservative estimate of the weekly volume of solid waste to be generated by the proposed development upon build-out. The estimates are conservative because the non-residential uses are assumed to have no recycling although many of these uses can recycle considerable amounts of materials. Based on data from the California Integrated Waste Management Board, in 2005, the City of San Jose generated approximately 1,820,000 tons of solid waste and recycled materials. At build-out CVSP would represent a small fraction of the city's total generated waste (approximately four percent using 2005 city-wide solid waste generation estimates).

The compostables collected in the Development Area will be hauled to a nearby composting facility or may be composted at the joint use maintenance site in CVSP. Any garbage collected within Coyote Valley will be disposed of at Newby Island Landfill operated by Allied Waste. The City currently has a 34-year Disposal Agreement with IDC, which expires in 2020. It is unknown how long there will be capacity at Kirby Canyon Landfill or other adjacent landfills, but all capacity within the City is expected to be exhausted by 2030 regardless of the development of CVSP.

**Impact UTIL-5:** The proposed CVSP project would not result in a significant impact as a result of exceeding the capacity of a landfill or in the provision of solid waste collection services. **[Less than Significant Impact]**

<b>TABLE 4.11-2: ESTIMATE OF SOLID WASTE TO BE GENERATED</b>	
<b>Land Use</b>	<b>Solid Waste Generation in Pounds Per Week</b>
Multi-Family Residential	610,960
Single-Family Residential	213,268
Commercial	838,298
Workplace	1,004,224
<b>Total</b>	<b>2,666,750*</b>
<p>* equates to approximately 69,300 tons per year.</p> <p>Generation rates used in this estimate are:</p> <ul style="list-style-type: none"> <li>• 31.6 pounds/week/single-family dwelling unit,</li> <li>• 31.1 pounds/week/multi-family dwelling unit,</li> <li>• 0.32 pound/week/square foot commercial,</li> <li>• 0.07 pound/week/square foot R&amp;D/residential, and</li> <li>• 0.07 pound/week/square foot office.</li> </ul> <p>Source: City of San José ESD, November 2006.</p>	

#### **4.11.2.6      *Electricity, Natural Gas, and Telephone Services Impacts***

Expansion of distribution and transmission lines and related facilities would be necessary to service the proposed CVSP project. In addition to adding new distribution feeders, the range of electric system improvements needed to accommodate the project may include upgrading existing substation and transmission line equipment, expanding existing substations to their ultimate build-out capacity, and building new substations and interconnecting transmission lines. Comparable upgrades or additions needed to accommodate additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, and distribution and transmission lines.

The California Public Utilities Commission (CPUC) has exclusive power and sole authority with respect to the regulation of privately owned or investor owned public utilities such as PG&E. This exclusive power extends to all aspects of the location, design, construction, maintenance, and operation of public utility facilities, which also includes any further CEQA review required to construct necessary improvements to service the proposed project. PG&E has projected that planned development of the Coyote Valley may require construction of an additional electric distribution substation to provide adequate power; however, the demand for power required by the proposed CVSP project would not significantly impact PG&E's delivery system. PG&E will be required to complete the appropriate environmental review for this substation.

**Impact UTIL-6:** Development allowed under the proposed CVSP project would not result in any identified significant impacts related to the provision of electricity, natural gas and telephone services. **[Less Than Significant Impact]**

#### **4.11.3      Mitigation and Avoidance Measures for Impacts Related to Utilities and Service Systems**

As previously described, the policies in the San José 2020 General Plan have been adopted for the purpose of avoiding or mitigating environmental effects resulting from planned development within the City. Future CVSP development projects shall be subject to these General Plan policies, as well as the following standard measures to mitigate environmental impacts. Additional or modified mitigation measures may be identified based on subsequent environmental review, once specific development is proposed.

**MM UTIL-2.1:** Due to the existence of high groundwater conditions in the CVSP Development Area, sanitary sewer would be constructed in such a way as to prevent groundwater from infiltrating the sewer system.

**MM UTIL-3.1:** The CVSP project shall include measures to conserve water usage. The City shall encourage or require water conservation in new development. Water efficient features such as high efficiency toilets (in excess of current code requirements), water conserving dishwashers, hot water demand systems, and common area laundries shall be implemented in residential developments. Commercial businesses shall be encouraged to install high efficiency and dual flush toilets, waterless urinals, electronic faucets, hot water demand systems, and dual plumbing for gray and recycled water, where it is available. Water used for irrigation shall be advanced treated recycled water. Industrial businesses shall be encouraged to implement water efficiency projects and to use recycled water for irrigation and industrial processes.

**MM UTIL-4.1:** The City of San Jose is as a signatory to the United Nations Urban Environmental Accords which includes three action items relating to Waste Reduction: 1) Establish a policy to achieve zero waste to landfills and incinerators by 2040; 2) Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least fifty percent in seven years; and 3) Implement "user-friendly" recycling and composting programs, with the goal of reducing by twenty percent per capita solid waste disposal to landfill and incineration in seven years.

**MM UTIL-4.2:** With continuing education and public outreach through the Recycle Plus *Curbside Courier*, a quarterly newsletter focusing on residential recycling,

and outreach and technical assistance for commercial generators, the City will focus on CVSP to be a model zero waste community. It is anticipated that recyclable tonnages could reach as much as 150 tons per day, which would be processed at the CVSP MRF.

**MM UTIL-4.3:** The lack of sufficient permitted landfill capacity beyond 2030 is a citywide issue which would occur without the CVSP project. In that regard, the City is already embarking on research and analysis to address this projection. The mitigation options available are to increase diversion of waste from disposal, extend existing landfill capacity, or open a new landfill in accordance with the San Jose 2020 General Plan. The City's preferred method for increasing the City's landfill capacity is to expand the capacity of existing landfill sites and monitor the continued availability of recycling, resource recovery and composting capacity to ensure adequate long-term capacity.

#### **4.11.4 Conclusions Regarding Impacts to Utilities and Service Systems**

**Impact UTIL-1:** Improvements to the existing sanitary sewer system to the north are currently under construction and a new sewer system would be required within the CVSP Development Area. Therefore, the proposed project would not result in significant impacts to the sanitary sewer system. **[Less than Significant Impact]**

**Impact UTIL-2:** Wastewater generated by new CVSP development would not exceed the capacity of the San José/Santa Clara Water Pollution Control Plant. **[Less than Significant Impact]**

**Impact UTIL-3:** Based on the WSE prepared for the project, the proposed CVSP project would not create a demand for water that cannot be met through supplies that are projected to be available to the SCVWD and potential water retailers. Implementation of MM UTIL-3.1, as described above, would further reduce impacts to existing water supply systems. **[Less than Significant Impact]**

**Impact UTIL-4:** The volume of stormwater expected to be generated by the proposed CVSP project would be accommodated in the planned storm drainage system. Impacts downstream of the CVSP area would be mitigated by MM HYD-9.1 and 9.2. **[Less than Significant Impact]**

**Impact UTIL-5:** The proposed CVSP project would result in a significant impact because the project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs at full build-out. **[Significant Unavoidable Impact]**

**Impact UTIL-6:** Development allowed under the proposed CVSP project would not result in any identified significant impacts related to the provision of electricity and natural gas in that PG&E has anticipated that a new substation will be required to serve the CVSP Development Area. **[Less Than Significant Impact]**